

Serial No. 09/458,190

- 5 -

Art Unit: 2127

REMARKS

Reconsideration and further examination is respectfully requested.

Drawings:

Three sheets of replacement drawings are provided herewith in response to the Draftsperson review of May 17, 2005.

Claim Objections

Claim 2 was objected to as failing to narrow claim 1. Applicants have cancelled claim 2.

Rejections under 35 U.S.C. §102

Claims 1-3, 5, 6, 8,10,11,13 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by Crayford (U.S. Patent 5,404,544).

Crayford:

Crayford describes, an invention that relates "generally to a system and method for automatic connection and disconnection of a node in a local area network to manage power of a LAN controller..." (col. 1, lines 10-12).

Crayford states, at column 2, lines 3-22:

"...Transceivers as used in 10BASE-T Ethernet networks may incorporate a sleep mode, in which a node incorporating the transceiver powers down when there is no activity for it after a predetermined period of time. However, when the node is in the sleep mode, it will miss any transmissions intended for it. It would be desirable to provide the power saving advantages of the sleep mode without resulting in missed transmissions. ...Accordingly, it is an object of this invention to provide a system and method in which a

Serial No. 09/458,190

- 6 -

Art Unit: 2127

data processing network controller will operate in a sleep mode to conserve power, but in which a portion of the controller remains active to monitor for transmissions..."

Crayford describes, in the Abstract:

"...One of the fundamental benefits of the 10BASE-T physical interface for 802.3/Ethernet is that the health of the communications link can be permanently monitored. When in the "link good" condition, the 10BASE-T transceiver is required to output a link status (LNKST) signal to this effect. Media Access Controller (MAC) 30, with an embedded 10BASE-T transceiver (37), uses the LNKST signal to provide power management to the MAC (30). By using the programmable AWAKE bit, the receive section of the 10BASE-T transceiver (37) can remain powered, even if the SLEEP input to the MAC (30) is activated. This allows the transceiver (37) to detect a link beat pulse (60) or receive packet activity. If either receive condition is encountered, the internal transceiver (37) will activate the LNKST output from the MAC (30). The system hardware and/or software can use the LNKST output to take appropriate action. For instance, if the LNKST output is active (low), then the computer is connected to an active network, and it is likely that the operating system will allow the MAC (30) to remain powered. However, if the LNKST becomes inactive (high) then the system can assume that the link is inactive, and the MAC can be powered down to save power. If at a later time the link is re-established, the MAC (30) can be powered back up to take advantage of the communications channel. In this way, the power consumption of the Ethernet connection can be managed by the operating software/hardware..."

The Examiner states, at page 3 of the office action that:

"Crayford teaches a computer implemented method for expediting a selected operation (normal operations/ data flow transmissions) in a computer system (system)the method comprising: associating a plurality of routing operations (normal operations / data flow transmissions) (col. 7, lines 15-46) with an operating system routing task (MAC/operating software), the plurality of routing operations including the selected operation (normal operations/ data flow transmissions); executing the operating system routing tasks at a low priority level (power saving mode / normal mode) prior to performing the selected operation; and raising the operating system routing task to a high priority level (normal mode/power saving mode) in order to perform the selected operation in response to a detection of a trigger condition (indication of a link status) comprising a link state advertising message indicating that the selected operation is to be performed (via the link status indicating that a link is established to thereby allowing the MAC/operating software to execute the normal operations) (col. 4, lines 7-43; col. 8, lines 6-22; abstract). It is inherent from the teachings of CRAYFORD that the inactive (sleep) and active (normal) modes have a priority level to one another since the sleep mode is either low (col. 7, lines 55-66) or high in relation to the other mode (abstract)..."

Serial No. 09/458,190

- 7 -

Art Unit: 2127

Applicant feels that the Examiner's characterization of Crayford as analogous to the claimed invention fails for a number of reasons, outlined below.

1. Crayford neither describes nor suggests 'routing'

It is clear to the Applicant that the Examiner has failed to give patentable weight to the term 'routing' which is used heavily in Applicants claim. In particular, the Examiner seems to indicate that a routing operation is analogous to the "normal operations" of the MAC.

Routing is a term well known in the art of network technology to be an operation performed at the OSI protocol layer 3. Applicants have provided, attached to this response, a brief description of the OSI protocol layers. The Examiner has provided a reference which describes controlling power delivered to a LAN controller, using physical layer signaling. The Examiner has failed to give patentable weight to the term 'routing' as used in the claimed invention.

It is well known that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." (M.P.E.P. §2131). Crayford neither describes nor suggests 'routing', nor could it, since it does not deal with that layer of the OSI model. For at least this reasons, the claims are patentably distinct from Crayford.

2. Crayford neither describes nor suggests "executing the operating system routing task at a low priority level prior to performing the selected operation ..."

The Examiner seems to state that the 'off' condition of Crayford is analogous to 'executing the operating system routing task at a lower priority level...' However, in the 'off'

Serial No. 09/458,190

- 8 -

Art Unit: 2127

state of Crayford, there *is inherently no 'executing' of tasks*, as there is no power to the device. [See column 4, lines 9 – 15 which states "... When SLEEP is active, all outputs will be placed in inactive or high impedance state ... This is the optimal mode for power saving, allowing clock inputs to the MAC 30 to be suspended..."] Because there are no clocks in the 'off' state of Crayford, there can be no *"executing the operating system routing task at a lower priority level..."* as recited in the claims. The Examiner must give patentable weight to the term 'executing.'

The Examiner states that 'It is inherent from the teachings of CRAYFORD that the inactive (sleep) and active (normal) modes have a priority level to one another since the sleep mode is either low (col. 7, lines 55-66) or high in relation to the other mode (abstract). Applicants respectfully submit that the Examiner is ignoring the fact that the use of the term 'priority' in the claimed invention refers to 'tasks.' The SLEEP is an input signal to the MAC. SLEEP having a high or low value is not the same thing as a task having a high and low priority. Applicants would respectfully submit that 'a task' is clearly and patentably distinct from a signal value. Thus, for these additional reasons the claims are patentably distinct over Crayford, and the rejection should be withdrawn.

3. Crayford neither describes nor suggests "associating a plurality of routing operations with an operating system routing task"

It is unclear to the Applicant how the Examiner is maintaining that Crayford is teaching the step of 'associating a plurality of routing operations with an operating system task...' The Examiner states "(normal operations/ data flow transmissions)" teach such a limitation. Applicants would have to respectfully disagree that any such limitation is shown or suggested by Crayford, for several reasons; first Crayford does not describe 'routing operations', and secondly,

Serial No. 09/458,190

- 9 -

Art Unit: 2127

Crayford does not appear to delineate any specific task, and associate operations with any specific tasks. For this additional reason, the rejection is improper and should be withdrawn.

4. Crayford neither describes nor suggests 'a link state advertising message'

The Examiner has failed to give patentable weight to the term 'link state advertising message' which is a term used in the routing art to describe a packet of information that is forwarded and includes link state information, that is used for the purposes of route calculations. No such link state advertising message is shown or suggested by Crayford. Applicants would respectfully submit that a link state signal is patentably distinct from the link state advertising message of the claimed invention.

Applicant has identified several reasons why the claims are patentably distinct over Crayford. As can be seen, these limitations are found in at least each of the parent claims. For example, independent claim 1 recites "...A computer implemented method for expediting a selected operation in a computer system, the method comprising ... *associating a plurality of routing operations with an operating system routing task*, the plurality of routing operations including the selected operation ... *executing the operating system routing task at a low priority level prior to performing the selected operation*; and ... *raising the operating system routing task to a high priority level in order to perform the selected operation in response to a detection of a trigger condition comprising a link state advertising message* indicating that the selected operation is to be performed..." Accordingly, for at least the reasons described above, claim 1 is patentably distinct from Crayford, and the rejection should be withdrawn. Dependent claims 3-5 serve to further limit claim 1 and are allowable for at least the same reason as claim 1.

Serial No. 09/458,190

- 10 -

Art Unit: 2127

Independent claim 6 recites "...A computer device comprising ... an operating system stored on a computer readable medium, the operating system comprising, an operating system task including logic which when executed performs a plurality of routing operations, the plurality of routing operations including a selected operation; and the operating system including task priority control logic operably coupled to execute the operating system task at a low priority level prior to performing the selected operation and raise the operating system task to a high priority level in order to perform the selected operation upon detection of a trigger condition, the trigger condition comprising receipt of a link state advertisement protocol message...." Accordingly, for at least the reasons described above, claim 6 is patentably distinct from Crayford, and the rejection should be withdrawn. Dependent claims 8-10 serve to further limit claim 6 and are allowable for at least the same reason as claim 6.

Independent claim 11 recites "...A program product comprising a computer readable medium having embodied therein a computer program for expediting a selected operation in a computer system, the computer program comprising... task priority control logic programmed to execute an operating system task associated with a plurality of operations including the selected operation at a low priority level prior to performing the selected operation and raise the operating system task to a high priority level in order to perform the selected operation upon detection of a trigger condition including receipt of a link state advertisement protocol message...." Accordingly, for at least the reasons described above, claim 11 is patentably distinct from Crayford, and the rejection should be withdrawn. Dependent claims 13-15 serve to further limit claim 11 and are allowable for at least the same reason as claim 11.

Serial No. 09/458,190

- 11 -

Art Unit: 2127

Rejections under 35 U.S.C. §103

Claims 4, 9, and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Crayford in view of Applicants Admitted Prior Art (AAPA).

Applicants have shown and described above how Crayford fails to describe or suggest the limitations of the claimed invention. The Applicants mention of a Dijkstra algorithm, used in combination with the teachings of Crayford, fails to remedy the inadequacies of Crayford. Accordingly, it is respectfully requested that the rejection be withdrawn because it fails to meet the prima facie requirement of teaching all of the limitations of the claimed invention.

Serial No. 09/458,190

- 12 -

Art Unit: 2127

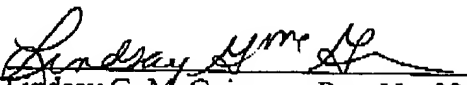
Conclusion

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Lindsay McGuinness, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

3/7/06
Date


Lindsay G. McGuinness, Reg. No. 38,549
Attorney/Agent for Applicant(s)
McGuinness & Manaras LLP
125 Nagog Park
Acton, MA 01720
(978) 264-6664

Docket No. 120-185
Dd: 3/13/06